



RECEIVED

OCT 2 8 2002

TECH CENTER 1600/2900

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in a box addressed to:

Assistant Commissioner for Patents,

Washington, D.C. 20231,

Quine Intellectual Property Law Group, P.C.

Tracie Brooks

Attorney-Docket No. 02-030210US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Examiner: S. Chen

Juha Punnonen, et al.

Art Unit: 1633

Application No.: 09/247,886

INFORMATION DISCLOSURE

Filed: February 10, 1999

STATEMENT UNDER 37 CFR § 1.97 and

§ 1.98

For: TARGETING OF GENETIC

VACCINE VECTORS

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.



Application No.: 09/247,886

Page 2

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed after the mailing date of the first Office Action and more than three months after the filing date, but prior to the Notice of Allowance or Final Office Action.

Please deduct \$180.00, pursuant to 37 CFR §1.17(p), from the undersigned's Deposit Account No. 50-0893. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

This paper is submitted in duplicate.

Respectfully submitted,

Jonathan A. Quine

Reg. No. 41,261

· QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.

P.O. Box 458

Alameda, CA 94501 Tel: (510) 337-7871 Fax: (510) 337-7877





(Modified) PTO/SB/08A-B (10-96) Approved for use through 10/31/99. OMB 0651-0031

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

C	omplete if Known	
Application Number	09/247,886	
Filing Date	February 10, 1999	
First Named Inventor	Juha Punnonen	
Group Art Unit	1633	
Examiner Name	S. Chen	
Attorney Docket Number	02-030210US	
Date Submitted	March 25, 2002	

	Т	U.S. Patent Do	cument	S. PATENT DOCUMENTS Name of Patentee or Applicant of	Date of Publication of	Pages, Columns, lines,
Examiner Initials	Cite No.	Number	Kind Code (if known)	Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appeal
	1	5,252,714		Harris et al.	10-12-1993	5 .
	2	5,348,867		Georgiou et al.	09-20-1994	
	3	5,512,463		Georgiou et al.	09-20-1994	
	4	5,514,588		Varadaraj	05-07-1996	
	5	5,571,698		Ladner et al.	11-05-1996	
	6	5,691,170		Gritz et al.	11-25-1997	
	7	5,763,239		Short et al.	06-09-1998	·
	8	5,789,228		Lam et al.	08-04-1998	
	9	5,814,473		Warren et al.	09-29-1998	
	10	5,862,514		Kauffman et al.	10-20-1998	
	11	5,866,344		Georgiou	02-02-1999	
	12	5,876,997		Kretz	03-02-1999	
	13	5,882,883		Egel-Mitani et al.	03-16-1999	
	14	5,925,749		Mathur, et al.	07-20-1999	
	15	5,939,300		Robertson, et al.	08-17-1999	
	16	5,942,430		Robertson, et al.	08-24-1999	
	17	5,948,666		Callen, et al.	09-07-1999	
	18	5,958,751		Murphy, et al.	09-28-1999	
	19	5,962,258		Mathur, et al.	10-05-1999	
	20	5,962,283		Warren et al.	10-05-1999	
	21	5,985,285		Titball et al.	11-16-1999	
	22	5,985,646		Murphy, et al.	11-16-1999	
	23	6,043,030		Beach et al.	03-28-2000	

-	1	
Examiner	Date	
Signature	Considered	





Substitute 10 COMADIA B/PTO							Complete if Know	wn		
			NOO. OOUD	_		Application Number 09/247,886				
			DISCLOSUR APPLICAN		_	Filing Date	February 10			
ואוט	L 1411	_141	AFFLICAN		_	First Named Inventor Group Art Unit	Juha Punno 1633	nen		
4.	(use as many sheets as necessary)					Examiner Name	S. Chen		\dashv	
(U						Attorney Docket Numbe				
						Date Submitted	March 25, 20	002		
2	24	6,054,	312		L	acocca et al.	04-25-2000	.		
2	25	6,087,	341		K	havari et al.	07-11-2000			
2	26	6,153,	410		A	rnold et al.	11-28-2000	6	\dashv	
2	27	6,156,	511		S	chatz et al.	12-05-2000		\dashv	
2	28	6,159,	687		V	ind	12-12-2000		\dashv	
2	9	6,159,	688		В	orchert et al.	12-12-2000		\dashv	
3	10	6,165,	718		В	orchert et al.	12-26-2000			
3	1	6,165,	793		S	temmer	12-26-2000		\neg	
3	2	6,168,	919		S	hort	01-02-2001		\exists	
3	3	6,171,8	320		SI	hort	01-09-2001		\exists	
3	4	6,174,6	673	-	SI	nort et al.	01-16-2001		\exists	
3	5	6,177,2	263		A	rnold et al.	01-23-2001			
3	6	6,180,4	1 06		St	emmer et al.	01-30-2001		\neg	
3	7	6,194,	183		М	arkvardsen et al.	02-27-2001			
3	8	6,238,8			SI	nort et al.	05-29-2001		\exists	
3	9	6,251,6			To	obin et al.	06-26-2001			
4	0	6,261,5			St	ewart, Jr. et al.	07-17-2001		\neg	
4	1	6,287,8	361		St	emmer et al.	09-11-2001			
	, , , , , , , , , , , , , , , , , , ,									
		-, <u>-</u>		· · · · · · · · · · · · · · · · · · ·						
			 		PREIG	N PATENT DOCUMEN			7	
Cit No		Office	Foreign Patent D Number	Kir	nd Code known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	т	
42		EP	0 125 228	A-		President and Fellows of Harvard	06-15-1988		\dashv	

Examiner	Date	Ì
Signature	Considered	



(Modified) PTO/SB/08A-B (10-96)

	TRADEN	MARK			Approved for use through 10/31	, 55. OND 0051-(
Substitu	ute for form 14	49A-B/PTO			Complete if Known	
				Application Number	09/247,886	
		DISCLOSURE		Filing Date	February 10, 1999	
STAT	EMENT BY	APPLICANT		First Named Inventor	Juha Punnonen	
				Group Art Unit	1633	
				Examiner Name	S. Chen	
(U	se as many sr	neets as necessary)		Attorney Docket Number	02-030210US	
				Date Submitted	March 25, 2002	
43	EP	0 725081	A1	Kyowa Hakko Kogyo Co., Ltd.	08-07-1996	
44	EP	0876509	B1	Maxygen, Inc.	09-19-2001	
45	EP	0911396	A2	Stemmer	04-28-1999	Š.
46	EP	0911396	А3	Stemmer et al.	05-06-1999	
47	EP	0934999	A1	Stemmer et al.	08-11-1999	
48	wo	90/14443		Huse	11-29-1990	
49	wo	91/07979		Center for Innovative Technology	06-13-1991	
50	wo	92/03461		Ixsys, Inc.	03-05-1992	
51	wo	92/06204		lxsys, Inc.	04-16-1992	
52	wo	92/11272		lxsys, Inc	07-09-1992	
53	wo	93/06214		The United States of America	04-01-1993	
54	wo	93/10214		Georgiou	05-27-1993	
55	wo	94/06421		The University of Tennessee Research	03-31-1994	
56	wo	94/23738	A1	Medisorb Technologies International L.P.	10-27-1994	
57	wo	94/26787	A1	The Boead of Trustees of the Leland Stanford Junior University	11-24-1994	
58	wo	95/16027	A1	Borrebaeck	06-15-1995	
59) WO	96/11279	A1	US Department of Health and Human	04-18-1996	

	ι	·
Examiner	Date	
Signature	 Considered	

Services

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



(Modified) PTO/SB/08A-B (10-96) Approved for use through 10/31/99. OMB 0651-0031

Substitute for form 1449A-B/PTO	Complete if Known		
	Application Number	09/247,886	
NFORMATION DISCLOSURE	Filing Date	February 10, 1999	
STATEMENT BY APPLICANT	First Named Inventor	Juha Punnonen	
	Group Art Unit	1633	
	Examiner Name	S. Chen	
(use as many sheets as necessary)	Attorney Docket Number	02-030210US	
	Date Submitted	March 25, 2002	

60	WO	96/13250	A1	Amgem, Inc.	05-09-1996		
61	WO-	96/37624		MG-PMC, L.L.C.	11-28-1996	Marie 14	
62	wo	97/04077		Recombinant Biocatalysis, Inc.	02-06-1997	g;	
63	WO	97/07128	A1	Duke University	02-27-1997		
64	wo	97/07205		Okkels	02-27-1997		
65	WO	97/11605	A1	University of Pittsburg of the Commonwealth System of Higher Education	04-03-1997		
66	wo	97/25410		Borchert et al	07-17-1997		
67	WO	97/32987	A1	University of Toronto	09-12-1997		
68	wo	97/44361		Lam et al.	11-27-1997		
69	wo	97/48416		Mathur et al.	12-24-1997		
70	wo	97/48717		Short et al.	12-24-1997		
71	wo	97/48794		Murphy et al.	12-24-1997		
72	wo	98/00526		Robertson et al.	01-08-1998		
73	wo	98/01581		Short	01-15-1998		
74	wo	98/05764		Novo Nordisk	02-12-1998		
75	wo	98/05765		Novo Nordisk	02-12-1998		
76	wo	98/24799		Bylina	06-11-1998		
77	wo	98/28416		Bjornvad et al.	07-02-1998		
78	wo	98/36080		Affholter et al.	08-20-1998		
79	wo	98/41622		Borchert et al.	09-24-1998		
80	wo	98/41623		Borchert et al.	09-24-1998		
81	wo	98/41653		Vind et al.	09-24-1998		

Examiner		Date	
Signature	·	Considered	A+

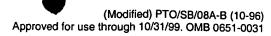


INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

C	omplete if Known	
Application Number	09/247,886	
Filing Date	February 10, 1999	
First Named Inventor	Juha Punnonen	
Group Art Unit	1633	
Examiner Name	S. Chen	
Attorney Docket Number	02-030210US	
Date Submitted	March 25, 2002	

82	wo	98/42727	SRI International	10-01-1998		T
83	wo	98/42832	Arnold et al.	10-01-1998		
84	wo	98/45444	The Regents of the University of California	he 10-15-1998	- 6	
85	wo	98/48034	Neiboer et al.	10-29-1998		
86	WO	98/49286	Board of Regents The University of Texas System	11-05-1998		
87	wo	98/58085	Short et al.	12-23-1998		
88	wo	99/07837	Callen	02-18-1999		
89	wo	99/08539	Kretz	02-25-1999		
90	wo	99/10472	Short	03-04-1999		
91	wo	99/10539	Short	03-04-1999		
92	wo	99/19506	lxsys, Inc.	04-22-1999		
93	wo	99/19518	Short	04-22-1999		
94	wo	99/21979	Apt et al.	05-06-1999		
95	wo	99/23107	Stemmer et al.	05-14-1999		
96	wo	99/23236	Diversa Corp. et a	al. 05-14-1999		
97	wo	99/29902	Arnold et al.	06-17-1999		
98	wo	99/41366	The Board of Trustees of the Leland Stanford Junior University	08-19-1999		
99	wo	99/41368	Maxygen, Inc.	08-19-1999		
100	wo	99/41369	Maxygen, Inc.	08-19-1999		
101	wo	99/41383	Maxygen, Inc.	08-19-1999		
102	wo	99/41402	Maxygen, Inc.	08-19-1999		
Examiner Signature				Date Considered		





Substitute for fam 1449A-B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

C	omplete if Known	
Application Number	09/247,886	
Filing Date	February 10, 1999	
First Named Inventor	Juha Punnonen	
Group Art Unit	1633	
Examiner Name	S. Chen	
Attorney Docket Number	02-030210US	
Date Submitted	March 25, 2002	

103	wo	99/45154	Short et al.	09-10-1999	
104	wo	99/57128	Stemmer et al.	11-11-1999	
105	wo	99/65927	Maxygen, Inc,	12-23-1999	6
106	wo	00/16984	Polard Corporation	03-30-2000	
107	wo	00/18778	Phylos, Inc.	04-06-2000	
108	wo	00/42560	Selifonov et al.	07-20-2000	
109	wo	00/42561	Crameri et al.	07-20-2000	
110	wo	00/46344	Diversa Corrporation	08-10-2000	
111	wo	00/53744	Short et al.	09-14-2000	
112	wo	00/58517	Short et al.	10-05-2000	
113	wo	01/00234	Maxygen, Inc	01-04-2001	

	т-	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Exami ner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	т
	114	Affholter et al. (1998) "Directed evolution of proteins and pathways by DNA shuffling." Book of Adstracts, 216th ACS National Meeting, Boston, August 23-27, BIOT-042	
	115	Agren et al. (1997) "Genetically Engineered Nontoxic Vaccine Adjuvant That Combines B Cell Targeting with Immunomodulation by Cholera Toxin A1 Subunit." J. Immunol 158:3936	
	116	Ahmed (1995) J Bacteriology 177(14):3904-3910	
	117	Ahn et al. (1996) "Human cytomegalovirus inhibits antigen presentation by a sequential multistep process." <i>Proc. Natl. Acad, Sci USA</i> 93:10990	
	118	Aizaki et al. (1998) "Full-Length Complementary DNA of Hepatitus C Virus Genome From an Infectious Blood Sample." Hepatology 27:621-627 (1998)	
	119	Aldovini & Young (1991) "Humoral and cell-mediated immune response to live recombinant BCG-HIV vaccines." <i>Nature</i> 351:479-482	
	120	Ambriovic, A. et al. (1997) "Efficacy of Replication-Defective Adenovirus-Vectored Vaccines: Protection Following Intramuscular Injection Is Linked to Promoter Efficiency in Muscle Representative Cells" Virology 238:, 327-335	

Examiner	Date	
Signature	Considered	



Substitute for form #449A-B/PTO Complete if Known **Application Number** 09/247,886 INFORMATION DISCLOSURE Filing Date February 10, 1999 STATEMENT BY APPLICANT First Named Inventor Juha Punnonen Group Art Unit 1633 **Examiner Name** S. Chen (use as many sheets as necessary) **Attorney Docket Number** 02-030210US **Date Submitted** March 25, 2002

1	Appel and Harris (1998) "Antiboby titers in domestic ferret fills and kits to canine distemper virus vaccines." <i>JAVMA</i> 193:332-333			
1:	Atkins et al. (1996) "Manipulation of the Semliki Forest Virus Genome and Its Potential for Vaccine Construction." <i>Mol Biotechnol</i> 5:33-38			
1	A (1000) NT (11 III			
1:				
1:	Baba et al., "Identification of CCR6, the Specific Receptor for a Novel Lymphocyte-directed CC Chemokine LARC," The J. of Biolog. Chem. 272 (23): 14893-14898 (1997).			
12	Bass et al. (1990) "Hormone Phage: An Enrichment Method for Variant Proteins With Altered Binding			
-	Properties." Proteins: Structures, Function and Genetice 8:309-314			
12	Beck et al., "DNA Sequence Analysis of 66 kb of the Human MHC Class II Region Encoding a Cluster of Genes for Antigen Processing," J. Mol. Biol. 228:433-441 (1992)			
12	Behrens et al. (1996) "Identification and properties of the RNA-dependent RNA polymerase of hepatitis C virus." <i>EMBO J.</i> 15:12-22			
12	Benham et al. (1997) "Proteasome activity limits the assembly f HMC class 1 molecules after IFN-gamma stimulation." J. Immol 159(2):5896-5904			
12	Berkhout et al. (1999) "Genetic Instability of Live, Attenuated Human Immunodeficiency Virus Type I Vaccine Strains." J. Virology 73(2):1138-1145			
13	Bernard et al. (1994) "Transcriptional Control and Cell Type Specificity of HPV Gene Expression." Arch Dermatol 130:210			
13	Bhatnagar et al. (1982) "Immune response to synthetic peptide analogues of hepatitis B surface antigen specific for the a determinant." <i>Proc Nat'l Acad Sci USA</i> 79:4400-4404			
13	Districted Observer 11 at al. (64) 1 1			
13	District And Will LOL LD LL D Will Co. L. D. Will C			
13	D1			
13	Diagon (4000) #11-0			
13	Bloom et al. (1993) Characterization of Chimeric Full-Length Molecular Clones of Aleutian Mink Disease Parvovirus (ADV) " J. Virol 67(10):5976-5988			
13	7 Bolhuis (1995) J. Biological Chamistry 270(3):26092-26098			
13	((1985)			
13	Boursnell et al. (1997) "A Genetically Inactivated Herpes Simplex Virus Type 2 (Hsv-2) Vaccine Provides Effective Protection against Primary & Recurrent HSV-2 Disease." J. Infect. Dis 175:16-25			
14	Bray et al. (1989) "Mice Immunized with Recombinant Vaccinia Virus Expressing Dengus Virus Encepha;it is." J. Virol 63:2853-2856			
14	Bridgen and Elliot (1996) "Rescue of a segmented negative-strand RNA virus entirely from cloned complementary DNA's." <i>Proc. Nat'l Acad. Sci USA</i> 93:15400-15404			
14				
 Examiner	Date			
Signature	Considered			



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

С	omplete if Known	
Application Number	09/247,886	
Filing Date	February 10, 1999	
First Named Inventor	Juha Punnonen	
Group Art Unit	1633	
Examiner Name	S. Chen	
Attorney Docket Number	02-030210US	
Date Submitted	March 25, 2002	

	basic protein." Nature 379:343-346
143	Brubaker (1991) "The V Antigen of Yersiniae: An Overview." Current Investigations of the Microbiology
143	of Yersinae 12:127-133
144	Burger et al. (1995) Proc. of thr Amer Assoc. for Cancer Research 36:522 Abst #3108
145	Burke et al. (1999) "Formulation, Stability and Delivery of Live Attenuated Vaccines for Human Use." Crit. Rev. Ther Drig. Carrier Syst 16:1-83
146	Burton (1995) "Phage Display." Immunotechnology 1(2):87-94
147	Carroll and Moss (1997) "Host range and Cytopathogenicity of the Highly Attenuated MVA Strain of Vaccinia Virus " Virology 238:198-211
148	Carter et al., "Improved oligonucleotide site-directed mutagenesis using M13 vectors," Nucl. Acids Res. 13:4431-4443 (1985)
149	Carter, "Improved Oligonucleotide-Directed Mutagenesis Using M13 Vectors," Methods in Enzymol. 154:382-403 (1987)
150	Carter, "Site-directed mutagenesis," Biochem. J. 237:1-7 (1986)
151	Casal (1999) "Use of parvovirus-like particles for vacation and induction of multiple immune response." Biotechnol Appl. Biochem 29:-141-150
152	Cathomen et al. (1998) "A matrix-less measles virus is infectious and extensive cell fusion: consequences for propagation in the brain." <i>EMBO J.</i> 17(14):3899-3908
153	Chang, C., et al. (1999) "Evolution of a cytokine using DNA family shuffling." Nature Biotechnology 17:793-797.
154	Chen et al. "Regulatory T Cell Clones Induced by Oral Tolerance: Suppression of Autoimmune Encephalomyelitis." Science 265:1237-1240
155	Chen et al., "Discontinuous epitopes of hepatitis B surface antigen derived from a filamentous phase peptide library," Proc. Nat'l. Acad. Sci. USA 93:1997-2001 (1996)
156	Chin et al. (1993) "Functions and Regulation of the Human Miltidrug Resistance Gene." Adv. Cancer Res. 60:157-180
157	Chu et al. (1995) "A Vaccina Virus-Vectored Hantaan Virus Vaccing Protects Hamsters from Challenge with Hantaan and Seoul Viruses but Not Pumala Virus." J. Virol 69:6417
158	Clackson et al. (1994) "In vitro selection from protein and peptide libraries." <i>Trends Biotechnol</i> 12(5): 173-184
159	Coco et al., (2001) "DNA shuffling method for generating highly recombined genes and evolved enzymes" Nature Biotechnology vol. 19 pp. 354-359
160	Collman et al. (1992) "An Infectious Molecular Clone of an Unusual Macrophage-Tropic and Highly Cytopathic Strain of Human Immunodeficiency Virus Type 1." J. Virol 66(12):7517-7521
161	Conry et al. (1996) "Selected strategies to augment polynucleotide immunization." Gene Therapy 3(1):67-74
162	Cote et al. (1986) "Protection of Chimpanzees from Type B Hepatitis by Immunization with Woodchuck Hepatitis Virus Surface Antigen." <i>J. Virol</i> 60:895-901
163	Crabtree (1998) "Eradication of chronic Helicobacter pylori infection by therapeutic vaccination." Gut 43:7-8

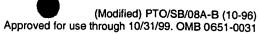
Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Substitute for form 1449A-B/PTO	Complete if Known		
	Application Number	09/247,886	
INFORMATION DISCLOSURE	Filing Date	February 10, 1999	
STATEMENT BY APPLICANT	First Named Inventor	Juha Punnonen	
	Group Art Unit	1633	
(use as many sheets as necessary)	Examiner Name	S. Chen	
	Attorney Docket Number	02-030210US	
	Date Submitted	March 25, 2002	

	Croin at al. (IT we distinct materials)				
164	Craiu et al., "Two distinct proteolytic processes in the generation of a major histocompatibility complex class I-presented peptide," Proc. Nat'l. Acad. Sci. USA 94:10850-10855 (1997)				
165	Crameri & Stemmer (1993) "10(20)-fold aptamer library amplification without gel purification." Nucleic Acids Research 21(18): 4410				
166	Cresswell & Hughes, "Protein degradation: The ins and outs of of the matter," Curr. Biol. 7:R552-R5551. (1997)				
167	Cwirla et al. (1990) "Peptides on Phage: A vast library of peptides for identifying ligands." Proc. Nat'l Acad Sci USA 87:6378-6382				
168	Davis et al (1995) "DNA-based immunization." Molecular and Cell Biology of Human Gene Therapeutics 5:368-387				
169	Davis et al. (1989) "In vitro Synthesis of Infectious Venezuelar Equine Encephalitis Virus RNA from a cDNA Clone: Analysis of a Viable Deletion Mutant." Virology 171:189-204				
170	Davis et al. (1997) "DNA-Baised immunization against hepatitis B surface antigen (HBsAg) in Normal and HBsAg-transgenic mice." Vaccine 15(8) 849-822				
171	Devlin et al. (1990) "Random Peptide Libraries: A Source of Specific Protein Binding Molecules." Science 249:404-406				
172	Dieu et al.,"Selective Recruitment of Immature and Mature Dendritic Cells by Distinct Chemokines Expressed in Different Anatomic Sites," J. Exp. Med. 188:373-386 (1998)				
173	DiMarco et al. (1997) "Agnostic and antagonistic variants of ciliary neurothrophic Factor (CNTF) Reveal functional differences between mambrean-bound and soluble CNTF Alpha-receptors." <i>J Biol. Chem.</i> 272(37):23069-23075				
174	Donovan et al. (1987) "Genes Encoding Spore Coat Polypeptides from Bacillus subtilis." J. Mol Biol 196:1-10				
175	Drabkin et al. (1996) "Amber Suppression in Mammalian Cells Dependent upon Expression of an Escherichia coli Aminoacyl-tRNA Synthetase Gene." Mol Cell. Biol. 16(3):907-913				
176	Dubols et al. (1998) "Immunization against Natural Helicobacter pylori Infection in Nonhuman Primates." Infect. Immun. 66:4340-4346				
177	Dunn (1996) "Phage display of proteins." Curr Opin Biotechnology 7(5):547-553				
178	Eghtedarzadeh and Henikoff, "Use of oligonucleotides to generate large deletions," Nucl. Acids Res. 14:5115 (1986)				
179	Engels and Ackermann (1996) "Pathogenesis of ruminant herpesvirus infections." Vet Microbiol 53:3-				
180	Felici, Franco et al., "Peptide and protein display on the surface of filamentous bacteriophage," Biotechnol. Annu. Rev. 1:149-83 (1995)				
181	Fields et al., "Crystal structure of a T-cell receptor B-chain complexed with a superantigen," Nature 384:188-192 (1996)				
182	Francisco, Joseph A. et al., "Production and fluorescence-activated cell sorting of Escherichia coli expressing a functional antibody fragment on the external surface," Proc. Nat'l. Acad. Sci. USA 90:10444-10448 (1993)				
183	Frankel and Young (1998) "HIV-1 Fifteen Proteins and an RNA." Annu. Rev. Biochem 67:1-25				
184	Freeman et al., "B7-1 and B7-2 Do Not Deliver Identical Costimulatory Signals, Since B7-2 but Not B7-1				
Examiner	Date				
Signature	Considered				



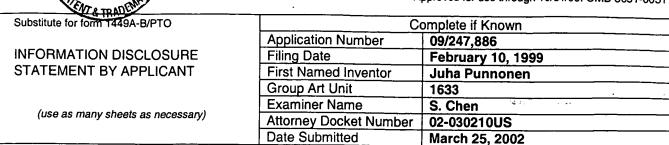
March 25, 2002

Substitute for form 1449A-B/PTO Complete if Known **Application Number** 09/247,886 INFORMATION DISCLOSURE Filing Date February 10, 1999 STATEMENT BY APPLICANT First Named Inventor Juha Punnonen **Group Art Unit** 1633 **Examiner Name** S. Chen (use as many sheets as necessary) Attorney Docket Number 02-030210US

Date Submitted

	1	Preferentially Costimulates the Initial Production of IL-4," Immunity 2:523 (1995)	$\overline{}$
	10-	Fritz et al. "Oligonucleotide-directed construction of mutations: a gapped duplex DNA procedure	╀
	185	without enzymatic reactions in vitro," Nucl. Acids Res. 16:6987-6999 (1988)	
	186	Gaczynska et al.,"Proteasome Subunits X and Y alter Peptidase Activities in Opposite Ways to the	Τ
		Interferon-y-induced Subunits LMP2 and LMP7*, J. Biol. Chem. 271:17275-17280 (1996)	
i	187	Galler et al. (1997) "The Yellow fever 17D vaccine virus: molecular basis of viral attnuation and its use	
		as an expression vector." J. Med Biol. Res. 30:157-168	
	188	Galocha et al. (1997) "The Active Site of ICP47, a Herpes Simple Virus-encoded Inhibitor of the Major	Г
		Histocompatibility Complex " J. Exp. Med 185:1565-1572	İ
	189	Garnett and Grenfell (1992) "The epidemiology of varicella-zoster virus infections: the influence of	T
	2	varicella on the prevalence of herpes zoster." Epidemiol. Infect 108:513-528	
	190	Geigenmuller et al. (1997) "Construction of a Genome-Length cDNA Clone for Human Astrovirus	T
	130	Serotype 1 and Synthesis of Infectious RNA Transcrips." J. Virol 71:1713-1717	ĺ
	191	Goldman et al. (1999) Molecular Cloning and Expression of Major Structural Protein " J. Virol.	T
	191	73:4465-4469	Ì
	192	Gritsun et al. (1998) "Development and analysis of a tick-bone encephalitis virus infectious clone using	۲
	132	a novel and rapid strategy." J Virol. Methods 76:109-120	
	193	Groettrup et al. "The subunits MECL-1 and LMP2 are mutually required for incorporation into the 20S	H
	193	proteasome," Proc. Nat'l. Acad. Sci. USA 94:8970-8975 (1997)	ı
	194	Groettrup et al., "A third interferon –γ-induced subunit exchange in the 20S proteasome," Eur. J.	H
	154	Immunol. 26:863-869 (1997)	l
	195	Groux et al.,"A CD4+ T-cell subset inhibits antigen-specific T-cell responses and prevents colitis,"	H
	195	Nature 389:737 (1997)	l
	196	Grundstrom et al., "Oligonucleotide-directed mutagenesis by microscale 'shot-gun' gene synthesis,"	Н
	190	"Nucleic Acids Res. 13:3305-3316 (1985)	
	197	Gualano et al. (1998) "Identification of a major determinant of mouse neurovirulence of dengue virus	_
	197	typw 2 using stably cloned genomic-length cDNA." J. Gen. Virol. 79:437-466	
	198	Guo et al. (1998) "Susceptibility to recombination rearrangements of a chimeric plum pox potyvirus	Н
	190	genome after insertion of a foreign gene." Virus Res 57:183-195	
	100	Halminen et al. (1997) "Expression of MXA Protein in Blood Lymphocytes Discriminates between Viral	Н
	199	and Bacterial Infections in Febrile Children." Pediatric Research 41:647-650	
	200	Han, Xiaoliang et al., "Ligand-directed retroviral targeting of human breast cancer cells," Proc. Natl.	۲
	200	Acad. Sci USA 92:9747-9751 (1995)	ĺ
	201	Hanes, Jozef and Andreas Pluckthun., "In vitro selection and evolution of functional proteins by using	Н
	201	ribosome display," Proc. Nat'l. Acad. Sci. USA 94(10):4937-42 (1997)	
	202	Haq et al. (1995) "Oral Immunization with a Recombinant Bacterial Antigen Produced in Transgenic	r
	202	Plants." <i>Science</i> 268:714-716	
	000	Haralambiev (1967) "Immunogenicity Studies on a Inactivated IBR Vaccine Administered Into the Nasal	H
	203	Mucosa." Acta Vet Acad Sci Hung 26:215-217	
	11		۲
	204	Center." J. Infect Dis. 165:987-993	
	005	HCJ Ertl et al., (1996) "Genetic Immunization" Viral Immunization Vol. 9, No. 1, pp. 1-9.	┝
	205	7 mai miniatization 701. 3, 140. 1, μμ. 1-9.	

	ַ	
Examiner	Date	
Signature	Considered	



2	206	He et al., "Antibody-ribosome-mRNA (ARM) complexes as efficient selection particles for in vitro display and evolution of antibody combining sites," Nucl. Acids Res. 25(24):5132-4 (1997)			
2	207	He et al. (1998) "The Paramyxovirus SV5 Small Hydrobhobic (SH) Protein Is Not Essential for Virus Growth in Tissue Culture Cells." <i>Virology</i> 250:30-40			
2	208	Hensel and Lubitz (1997) Vaccination by Aerosols: Modulation of Clearance Mechanism in the Lung." # Behring. Inst. Mitt. 98:212-219			
2	209	Hill et al., "Phage presentation," Mol Microbiol 20(4):685-92 (1996)			
2	210	Hoffman and Banerjee (1997) "An Infectious Clone of Human Parainfluenza Virus Type 3." J Virol. 71:4272-4277			
2	11	Hohol et al. (1996) "Three-year Open Protocol Continuation Study of Oral Tolerization with Myelin Antigens in Multiple Sclerosis and Design of a phase III Pivotal Trial." Ann. N.Y. Acad Sci. 778:243-250			
2	12	Holzmann, H. et al., "Molecular epidemiology of tick-borne encephalitis virus: cross-protection between European and Far Eastern subtypes," Vaccine 10:345 (1992)			
2	13	Hopkins and Yoder (1986) "Reversion to Virulence of Chicken-Passaged Infectious Bronchitis Vaccine Virus." Avain Dis. 30:221-223			
2	14	Hourvitz et al. (1996) "Reactogenicity and immunogenicity of a new recombinant hepatitis B Vaccine containing Pre S Antigens." <i>J Virol. Hepatitis</i> 3:37-42			
2	15	Hristov and Karadjov (1975) Vet Med Nauki 13:5			
2	16	Huang, Sharon K.S. et al., "Antibody Responses to Melanoma/Melanocyte Autoantigens in Melanoma Patients," J. Invest. Dermatol. 111:662-7 (1998)			
2	17	Hui, George S.N. et al., "Dominance of Conserved B-Cell Epitopes of the Plasmodium falciparum Merozoite Surface Protein, MSP1, in Blood-Stage Infections of Naïve Actus Monkeys," Infect. Immun. 64:1502-1509 (1996)			
2	18	Hulskotte at al. (1998) "Towards an HIV-1 vaccine: lessons from studies in macaque models." Vaccine 16:904-915			
2	19	Hurtado et al. (1996) "Identification of Domains in Canine Parvovirus VP2 Essential for the Accembly of Virus-Like Particles." J. Virol 70:5422-5429			
22	20	lacono-Connors et al., Virus Res. 43:125-136 (1996)			
22	21	Irvine, K.R. et al., "Cytokine Enhancement of DNA Immunization Leads to Effective Treatment of Established Pulmonary Metastases," Journal of Immunology, 156:238-245 (1996)			
22	22	Jia et al. (1995) "A Novel virant of avain infectious bronchitis virus resulting from recombination among three different strains." <i>Arch Virol</i> 140:259-271			
22	23	Jiang et al. (1999) "Heterotypic protection from rotavirus infection in mice vaccinated with virus-like particles." Vaccine 17:1005-1013			
22	24	Jiang et al., "Subtraction hybridization identified a novel melanoma differentiation associated gene, mda-7, modulated during human melanoma differentiation, growth and progression," Oncogene 11:2477 (1995)			
22	25	Jiang et al., "The melanoma differentiation associated gene mda-7 suppresses cancer cell growth," Proc. Nat'l. Acad. Sci. USA 93:9160 (1996)			
22	26	Jin et al. (1998) "Recombinant Human Respiratory Synctial Virus (RSV) from cDNA and Construction of Subgroup A and B Chimeric RSV." Virology 251:206-214			
Examine	r	Date			
Signature	e	Considered			

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Complete if Known

Application Number 09/247,886

Filing Date February 10, 1999

First Named Inventor Juha Punnonen

Group Art Unit 1633

Examiner Name S. Chen

Attorney Docket Number 02-030210US

Date Submitted March 25, 2002

(use as many sheets as necessary)

227	Johnston, et al. (1997) "Genetic to genomic vaccination" Vol. 15, no. 8 pp 808-809
228	Kang et al. (1999) "Development of HIV/AIDS Vaccine Using Chimeric gag-env Virus-like Particles." Biol. Chem 380:353-364
229	Karandikar et al., "CTLA-4: A Negative Regulator of Autoimmune Disease," J. Exp. Med. 184:783 (1996).
230	Keck. Et al. (1988) "In Vivo RNA-RNA Recombination of Coronavirus in Mouse Brain." J. Virol. 62:1810-1813
231	Keenan et al.,"Lack of Protection following immunisation with H. pylori outer membrane vesicles highlights antigenic differences between H. felis and H. pylori," FEMS Microbiol Lett. 161:21-7 (1998)
232	Khavari, (1997) " Therapeutic gene delivery to the skin" Molecular Medicine Today, Dec. 1997: 533538
233	Kim et al., "In Vivo Engineering of a Cellular Immune Response by Coadministration of IL-12 Expression Vector with a DNA Immunogen," J. Immunol. 158:816 (1997)
234	Kim, et al. (1997) "Development of a multicomponent candidate vaccine for HIV-1" Vaccine, Vol. 15 No. 8 pp 879-883.
235	Kinney et al. (1997) "Construction of Infectious cDNA Clones for Dengue 2 Virus: Strain 16681 and Its Attenuated Vaccine Derivative, Strain PDK-53." Virology 230:300-308
236	Kinney et al., "Recombinant Vaccinia Virus/Benezuelan Equine Encephalitis (VEE) Virus Protects Mice from Peripheral VEE Virus Challenge," J. Virol. 62:4697 (1998)
237	Kleanthous et al., "Vaccine development against infection with Helicobacter pylori," Br. Med. Bull. 54:229-41 (1998)
238	Klinman et al., "CpG motifs present in bacterial DNA rapidly induce lymphocytes to secrete interleukin 6, interleukin 12 and interferon □," Proc. Nat'l. Acad. Sci. USA 93:2879 (1996)
239	Klinman, D.M. et al., "Contribution of CpG Motifs to the Immunogenicity of DNA Vaccines," Journal of Immunology, 158:3635-3639 (1997)
240	Kobayashi et al.,"Identification and Purification of Natural Killer Cell Stimulatory Factor (NKSF), A Cytokine with Multiple Biologic Effects an Human Lymphocytes," J. Exp. Med. 170:827 (1989)
241	Kobyashi, Yuzuru et al., "Antigenic Analysis of Japanese Encephalitis Virus by Using Monoclonal Antibodies," Infect. Immun. 44:117 (1984)
242	Kochel, Tadeusz et al., "Inoculation of plasmids expressing the dengue-2 envelope gene elicit neutralizing antibodies in mice," Vaccine 15:547-552 (1997)
243	Kodama et al., "Type I macrophage scavenger receptor contains -helical and collagen-like coiled coils," Nature 343:531-535 (1990)
2.44	Konishi et al.,"A Highly Attentuated Host Range-Restricted Vaccinia Virus Strain, NYVAC, Encoding the prM, E and NS1 Genes of Japanese Encephalitis Virus Prevents JEV Viremia in Swine," Virology 190:454 (1992)
245	Koopman et al., "Generation, intracellular transport and loading of peptides associated with MHC class 1 molecules," Curr. Opin. Immunol. 9:80-88 (1997)
246	Kramer and Fritz, "Oligonucleotide-Directed Construction of Mutations via Gapped Duplex DNA," Methods in Enzymol. 154:350-367 (1987)
247	Kramer et al. "Improved Enzymatic in vitro reactions in the gapped duplex DNA approach to oligonucleotide-directed construction of mutations," Nucl. Acids Res. 16:7207 (1988)

	1	
Examiner	Date	
Signature	 Considered	٩



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

C	omplete if Known	
Application Number	09/247,886	
Filing Date	February 10, 1999	
First Named Inventor	Juha Punnonen	
Group Art Unit	1633	
Examiner Name	S. Chen	
Attorney Docket Number	02-030210US	
Date Submitted	March 25, 2002	

	Vermon et al. #Different D. /D. Att.					
248	Directed DNA Mismatch-Repair System of E. coli," Cell 38:879-887 (1984)					
249	Kramer et al., "The gapped duplex DNA approach to oligo Nucl. Acids Res. 12:9441-9456 (1984)		ł			
250	Krieg et al., "CpG motifs in bacterial DNA trigger direct B-cell activation," Nature 374:546 (1995)					
251	Krieger, M. et al., "Molecular Flypaper, Atherosclerosis, and Host Defense: Structure and Function of the Macrophage Scavenger Receptor," Cold Spring Harbor Symposia on Quantitative Biology 57:605-609 (1992)					
252	Kruse et al., "Conversion of human interleukin-4 into a high affinity antagonist by a single amino acid replacement," EMBO J. 11:3237-3244 (1992)					
253	Kuchroo et al., "B7-1 and B7-2 Costimulatory Molecules And Developmental Pathways: Application to Autoimmune Dis	Activate Differential	y the Th1/Th2			
254	Kunkel et al.,"Rapid and Efficient Site-Specific Mutagenes Enzymol. 154:367-382 (1985)	sis without Phenoty	oic Selection," Methods in			
255	Kunkel, "The efficiency of oligonucleotide directed mutage 124-135 (1988)					
256	Kunkel, "Rapid and Efficient Site-Specific Mutagenesis wit Sci. USA 82:488-492 (1985)					
257	Lagranderie et al. (1993) "BCG-induced protection in guin respiratory route." <i>Tubercle and Lung Disease</i> 74:38-46		-			
258	Lai et al. (1991) "Infectious RNA transcribed from stabily cloned full-length cDNA of dengue type 4 Virus." Proc. Nat'l Acad. Sci. USA 88:5139-5143					
259	Lanar et al. (1996) "Attanuated Vaccinia Virus-Circumsporoziote Protein Recombinants Confer Protection against Rodent Malaria." <i>Infect Immun</i> 64:1666-1671					
260	Lanciotti et al. (1994) "Molecular evolution and epidemology of dengue-3 viruses." <i>J Gen Virol.</i> 75:65-75					
261	Larsen et al., Long Term acceptance of Skin and Cardiac Allografts After Blocking CD40 and CD28 Pathways,"Nature 381: 434 (1996).					
262	Laud et al., Human Immunol. 50:91-102 (1996)					
263	Leary et al.,"Active Immunization with Recombinent V Antigen from Yersinia Pestis Protects Mice against Plague," Infect. Immun. 3:2854 (1995)					
264	Lee et al., (1997) "Generation of an Infectious cDNA of a highly cardiovirulent coxsakievirus B3(CVB3m) and comparasion to other infectious CVB cDNAs." Virus Res 50:255-235					
265	Lee et al., "Optimal Induction of Hepatitis C Virus Envelope-Specific Immunity by Bicistronic Plasmid DNA Inoculation with the Granulocyte-Macrophage Colony-Stimulating Facter Gene," J. Virol 72:8430-6 (1998)					
266	Lehrer et al. (1998) "Immunotherapy with Mycobacterium vaccae in the treatment of psoriasis." FEMS Immunol. Med. Mircobiol. 21:71-77					
267	Leung et al. (1989) Technique 1(1):11-15					
268	Li et al. (1997) "Expression of the Human Papillomavirus Type 11 L1 Capsid Protein in Escherichia coli " J. Virol 71(4):2988-2995					
Examiner		Date				
Signature		Considered				

_	N In 124 4 6	- 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4	<u> </u>			
5	oudstitute t	or form 1449A-B/PTO		Complete if k		
11	INFORMATION DISCUSSION			Application Number 09/247,886		
	INFORMATION DISCLOSURE		Filing Date		10, 1999	
STATEMENT BY APPLICANT		ENT BY APPLICANT	First Named Inventor Juha Punnonen			
Cy			Group Art Unit	1633		
STATEMENT BY APPLICANT (use as many sheets as necessary)			Examiner Name	S. Chen		
			Attorney Docket Nur			
	륏		Date Submitted	March 25	, 2002	
	<u> </u>		W-1.			
Li et al., "Cloning and function processing," Proc. Natl. Acad.			<u>Sci USA 94: 8708-8713 (19</u>	init of the transport 197).	er associated with antigen	
	270	Liao et al. (1990) Gene 107-11	1			
	271	Liao et al., STRL22 is a Recep 212-217 (1997).r	tor for the CC Chemokine	MIP-3α," Biochem.	and Biophys. Comms. 236;	
	272	Liblau et al. "Th1 and Th2 CD4 Immunol. Today 16:34-38 (199	5)	s of organ-specific	autoimmune diseases,"	
	273	Liem et al. (1994) Nucleic Acid	s Res 22(9):1613-1619			
	274	Lieschke et al.,"Bioactive muri	ne and human interleukin-1	2 fusion proteins w	hich retain antitumor	
	1214	activity in vivo," Nature Biotech.	15:35 (1997)			
	275	Limbach and Paoletti (1996) and gene therapy." Epidemol. II	Non-replicating expression	vectors: application	ns in vaccine development	
	276	Lowe et al. (1997) "Human Par	oillamavirus Typw 2 (HPV-1	1) Nutralizing Antil	oobies in the Serum and	
	-/ 0	Genitial Mucosal Secretions of	African Green Monkeys Imi	munized with HPV-	11 Virus-like particles	
		Expressed in Yeast." J. Invect			·	
	277	Lowman, Henry B. and Jame Phage Display," J. Mol. biol. 234	4:564-578 (1993)		-	
	278	Lowman, Henry B. and James A. Wells, "Monovalent Phage Display: A Method for Selecting Variant Proteins from Random Libraries," Methods: A Companion to Methods Enz. 3(3):205-216 (1991)				
	279	Lu, Zhijian et al., "Expression of Thioredoxin Random Peptide Libraries on the Escherichia coli Cell				
		Surface as Functional Fusions t	o Flagellin: A System Desi	gned for Exploring	Protein-Protein	
		Interactions," Bio/Technology 13 Luytjes et al. (1989) "Amplifica		ging of a Foreign (one by Inflyone Vince II	
	280	Cell 59:1107-1113	mon, Expressionand Packa	iging of a Foreign C	sene by influenza virus."	
-	281	Mandl et al. (1997) "Infectious of	DNA clones of tick-horne	encenhalitis virus F	uronean subtype protopic	
	201	strain Neudoerfl and high viruler	nce strain Hypr." <i>J. Gen. Vi</i>	rol 78:1049-1057	aropean subtype protopic	
	282	Marchetti, Marta et al., "Protec	tion against Helicobactet p	ylori infection in mid	e by intragastric	
		vaccination with H. pylori antige	ns is achieved using a non-	toxic mutant of E.	coli heat-labile enterotoxin	
		(LT) as adjuvant," Vaccine 16:3:	3-7 (1998)		1	
	283	Marusina et al.,"Allelic Variation 158:5251-5256 (1997)	n in the Mouse Tap-1 and 1	ap-2 Transporter C	Benes," J. Immunol.	
		Mattheakis, Larry C. et al., "An	in vitro nolveomo dienterra	waten for identifica-		
	284	peptide libraries," Proc. Nat'l. Ac	an viuo polysome display s ead. Sci. USA 91/19/20022-	system for identifyir 6 (1994)	ig ligands from very large	
	205	McAtee, C. Patrick et al "Iden	tification of Potential Diagn	ostic and Vaccine	Candidates of Helicobacter	
	McAtee, C. Patrick et al., "Identification of Potential Diagnostic and Vaccine Candidates of Helicobacter pylori by "Proteome" Technologies," Helicobacter 3:163-9 (1998)				I I I I I I I I I I I I I I I	
		McAtee, C. Patrick et al., "Identification of Potential Diagnostic and Vaccine Candidates of Helicobacter				
	286	MCAtee, C. Patrick et al., "Iden	tification of Potential Diagn	ostic and Vaccine (Candidates of Helicobacter	
	286	pylori by Two-Dimensional Gel I	tification of Potential Diagn	ostic and Vaccine (Analysis, and Seru	Candidates of Helicobacter m Profiling," Clin. Diagn.	
		pylori by Two-Dimensional Gel E Lab. Immunol. 5:537-42 (1998)	tification of Potential Diagn Electrophoresis, Sequence	Analysis, and Seru	m Profiling," Clin. Diagn.	
	286	pylori by Two-Dimensional Gel I Lab. Immunol. 5:537-42 (1998) McCutcheon et al. "A senstive	tification of Potential Diagn Electrophoresis, Sequence ELISPOT assay to detect l	Analysis, and Seru	m Profiling," Clin. Diagn.	
		pylori by Two-Dimensional Gel E Lab. Immunol. 5:537-42 (1998)	tification of Potential Diagn Electrophoresis, Sequence ELISPOT assay to detect le 1997)	Analysis, and Seru	an T lymphocytes,", J.	
	287	pylori by Two-Dimensional Gel I Lab. Immunol. 5:537-42 (1998) McCutcheon et al. "A senstive Immunol. Methods 210:149-66 (tification of Potential Diagn Electrophoresis, Sequence ELISPOT assay to detect le 1997)	Analysis, and Seru	an T lymphocytes,", J.	
	287	pylori by Two-Dimensional Gel I Lab. Immunol. 5:537-42 (1998) McCutcheon et al. "A senstive Immunol. Methods 210:149-66 (tification of Potential Diagn Electrophoresis, Sequence ELISPOT assay to detect le 1997) of Proteins and Peptides fo	Analysis, and Seru ow-frequency huma om Libraries Displa	an T lymphocytes,", J.	
Exami	287	pylori by Two-Dimensional Gel I Lab. Immunol. 5:537-42 (1998) McCutcheon et al. "A senstive Immunol. Methods 210:149-66 (tification of Potential Diagn Electrophoresis, Sequence ELISPOT assay to detect le 1997) of Proteins and Peptides fo	Analysis, and Seru	an T lymphocytes,", J.	

Substitute for form 1449A-B/PTO	С	omplete if Known
	Application Number	09/247,886
INFORMATION DISCLOSURE	Filing Date	February 10, 1999
STATEMENT BY APPLICANT	First Named Inventor	Juha Punnonen
C,	Group Art Unit	1633
Use as many sheets as necessary)	Examiner Name	S. Chen
Truse as many sneets as necessary)	Attorney Docket Number	02-030210US
	Date Submitted	March 25, 2002

107.83	RANGE 289	Bacteriophage," Mol Biotechnol. 6(2):155-62 (1996)	T
	289	Melen et al., "Enzymatic Characterization of Interferon-Induced Antiviral GTPases Murine Mx1 and	
<u> </u>		Human MxA Proteins," J. Biol, Chem. 269: 2009-2015 (1994).	1
1	290	Metz et al. (1996) "Bicistronic and Two-Gene Retroviral Vectors for Using MDR1 as a Selectable Market	
<u> </u>		and a Therapeutic Gene." Virology 217:230-241	1
	291	Meulenberg et al. (1998) "An Infectious cDNA Clone Porcine Reproductive and Respiratory Syndrome	
<u> </u>		Virus." Coronaviruses and Arteriviruses 440:199-206	<u></u>
	292	Meulenberg et al. (1998) *Infectious Transcrips from Cioned Genome-Length cDNA of Porcine	
ļ		Reproductive and Respiratory Syndrome Virus." J. Virol. 72:380-387	
	293	Meyer et al. (1998) "Bovine herpesvirus type 1 glycoprotein H is essential for penetration and and	
-		propagation in cell culture." J. Gen Virol. 79:1983-1987	1
	294	Mittelholzer et al. (1997) "Generation of cytopathogenic RNA of classical swine fevor in persistently infected porcine cell lines." Virus Res 51:125-137	1 1
-		Monaco, "Pathways for the processing and presentation of antigens to T cells," J. Leukocyte Biol.	— ∣
İ	295	57:543-57 (1995)	
<u> </u>	000	Morita et al. (1987) "Recombinant vaccinia virus LC16m0 or LC1m8 that expresses hepatitus B surface	
	296	antigen while preserving the attention of the parental virus." <i>Vaccine</i> 5:65-70	
-	297	Mosmann and Coffman, Adv. Immunol. 46:111 (1989)	
	297	, ,	1 1
i	298	Moss (1994) "Replicating and Host-Restricted Non-Replicating Vaccina Virus Vectors for Vaccine	
<u> </u>		Development." Dev. Biol. Stand 82:55-63	Ľ
	299	Mundt and Vakharia (1996) "Synthetic transcripts of double-stranded Birnavirus genome are	
<u> </u>		infectious." Proc Nat'l Acad. Sci USA 93:11131-11136	
	300	N. Miller et al., (1995) "Targeted vectors for gene therapy," FASEB J., 9, pp. 190-199.	
	301	Nakamaye and Eckstein, "Inhibition of restriction endonuclease Nci I cleavage by phosphorothioate	\vdash
1	301	groups and its application to oligonucleotide-directed mutagenesis," Nucl. Acids Res. 14:9679-9698	
		(1986)	
	302	Nambiar et al.,"Total Synthesis and Cloning of a Gene Coding for the Ribonuclease S Protein," Science	$\vdash \vdash$
		223:1299-1301 (1984)	
	303	Nazerian et al. (1996) "Protection and synerhism by Recombinant Fowl Pox Vaccines Expressing	\square
<u> </u>		Genes from Marek's Disease Virus." Avian Dis. 40:368-376	
	304	Nemoto, Naoto et al., "In vitro virus: Bonding of mRNA bearing puromycin at the 3'-terminal end to the	
		C-terminal end of its encoded protein on the ribosome in vitro," FEBS Lett. 414(2):405-8 (1997)	
	305	Ness, J. et al., (1999) "DNA shuffling of subgenominc sequences of subtilisin." Nature Biotechnology	
		17:893-896.	
1	306	Neurath, A.R. et al., "Monoclonal Antibodies to Hepatitis BSurface Antigen (HBsAg) with Anti-a	
		Specificity Recognize A Synthetic Peptide Analogue (S135-155) with Unmodified Lysine (141)," J. Virol.	
<u> </u>		Methods 9:341-346 (1984)	
	307	Ni and Barrett, "Nucleotide and deduced amino acid sequence of the structural protein genes of	
<u> </u>		Japanese encephalitis viruses from different geographical locations,"J. Gen. Virol. 76:401 (1995)	Щ
	308	Notka et al. (1999) "Constructon and Characterization of Recombinant VLPs and Semliki-Forest Virus	
L		Live Vectors for Comparative Evaluation in the SHIV Monkey Model." Biol Chem 380:341-352	

Examiner	Date	
Signature	Considered	

Substitute for form 1449A-B/PTO	Complete if Known		
	Application Number	09/247,886	
INFORMATION DISCLOSURE	Filing Date	February 10, 1999	
STATEMENT BY APPLICANT Use as many sheets as necessary)	First Named Inventor	Juha Punnonen	
C76	Group Art Unit	1633	
& <u>E</u>	Examiner Name	S. Chen	
. - •	Attorney Docket Number	02-030210US	
翼.	Date Submitted	March 25, 2002	

, C	\$/	
NT & TRADE	309	O'Neil, Karyn T. et al., "Phage display: protein engineering by directed evolution," Curr. Opin. Struct. Biol. 5(4):443-9 (1995)
	310	Oda Kobe J. Med. Sci. 22:123 (1976)
	311	Orme (1997) "Progress in the development of new vaccines against tuberculosis." Int. J. Tuberc. Jung.
	312	Ortmann et al.,"A Critical Role for Tapasin in the Assembly and Function of Multimeric MHC Class 1- TAP Complexes," Science 277: 1306-1309 (1997).
	313	Paoletti et al. (1995) "Highly Attenuated Poxvirus: HYVAC, ALVAC and TROVAC," Dev Biol Stand 84:159-163
	314	Park and RajBhandary (1998) "Tatracycline-Regulated Suppression of Amber Codons in Mammalian Cells." Mol Cell Biol 18:4418-4425
	315	Parren, Paul W.H.I. et al., "Relevance of the antibody response against human immunodeficiency virus type 1 envelope to vaccine design," Immunol. Lett. 57:105-112 (1997)
	316	Parronchi et al., "IL-4 and IFN (☐ and ☐) Exert Opposite Regulatory Effects on the Development of Cytolytic Potential by Th1 or Th2 Human T Cell Clones," J. Immunol. 149:2977 (1992)
	317	Paul and Seder, "Lymphocyte Responses and Cytokines," Cell 76:241 (1994)
	318	Paulusma et al. (1996) "Congenital jaundice in rats with a mutation in a multidrug resistance-associated protein gene." Science 271:1126-1128
	319	Pelletier, Joelle N., (2001) "A Rachitt for our toolbox" Nature Biotechnology vol. 19, p. 314-315
	320	Peng et al. (1998) "Papillomavirus Virus-like Particles Can Deliver Defined CTL Epitopes to the MHC Class 1 Pathway." Virology 240:147-157
	321	Penzes et al. (1996) "Replication and Packaging of Coronavirus Infectious Bronchitis Defective RNSa Lacking a Long Open Reading Frame." J. Virol 70:86660-8668
	322	Phizicky, Eric M. et al., "Protein-Protein Interactions: Methods for Detection and Analysis," Microbiol Rev. 59(1):94-123 (1995)
	323	Pletnev, A.G. et al., Chimeric Tick-Borne Encephalitis and Dengue Type 4 Viruses: Effects of Mutations on Neurovirulence in Mice," J. Virol. 67(8):4956-4963 (1993)
	324	Polo et al. (1999) "Stable alphavirus packaging cell lines for Sidbis virus-and Semlike Forest virus-derived vectors." Proc Nat'l Acad. Sci USA> 96:4598-4603
	325	Porcelli (1995) Adv. Immunol 59:1
	326	Powis et al.,"Polymorphism in a second ABC transporter gene located within the class il region of the human major hisotcompatibility complex,"Proc. Nat'l. Acad. Sci. USA 89:1463-1467 (1996)
	327	Premack et al. (1996) Nature Med. 2:1174
	328	Pryor et al. (1998) "Growth restriction of dengue virus type 2 by site-specific mutagenesis of virus- encoded glycoproteins." <i>J. Gen Virol.</i> 79:2631-2639
	329	Punnonen et al. J. Exp Med. 185:993-1004
	330	Punnonen et al., "Interleukin 13 induces interleukin 4-independent IgG4 and IgE synthesis and CD23 expression by human B cells," Proc. Nat'l. Acad. Sci. USA 90:3730 (1993)

	(
Examiner	Date	
Signature	Considered	

Substitute for form 1449A-B/PTO	Complete if Known		
	Application Number	09/247,886	
INFORMATION DISCLOSURE	Filing Date	February 10, 1999	
TATEMENT BY APPLICANT	First Named Inventor	Juha Punnonen	
	Group Art Unit	1633	
S TOTAL OF THE e as many sheets as necessary)	Examiner Name	S. Chen	
(use as many sheets as necessary)	Attorney Docket Number	02-030210US	
· · · · · · · · · · · · · · · · · · ·	Date Submitted	March 25, 2002	

Puri et al. (1998) "Complete Nucleotide Sequences Analysis of a Western Pacific Dengue-1 Virus Strain." Virus Genes 17:85-88
Racke, Michael K. et al., "Cytokine-induced Immune Deviation as a Therapy for Inflammatory Autoimmune Disease," J. Exp. Med. 180:1961-66 (1994)
Rahden-staron et al. (1991) Biochem & Biophy Res. & Commun. 177(2):597-602
Raj and Jones (1997) "Growth of infectious bronchitis virus vaccines in oviducts derived from oestrogen-treated chicks and embryos." <i>Vaccine</i> 15:163-168
Reiser et al., "Cloning and expression of a cDNA for the T-cell-activating protein TAP," Proc. Nat'l. Acad. Sci. USA 85:2255-2259 (1988)
Roden et al. (1996) "In Vitro Generation and TypeSpecific Neutralization of a Human Papillomavirus Type 16 Viron Pseudotype." <i>J. Virol.</i> 70:5875-5883
Roggenkamp et al., "Passive Immunity to Infection with Yersinia spp. Mediated by Anti-Recombinant V Antigen is Dependent on Polymorphism of V Antigen," Infect. Immun. 65:446 (1997)
Roncarolo et al. "Human T- and B-cell functions in SCID-hu mice," Semin. Immunol. 8: 207 (1996)
Sagazio et al. (1998) "Antigenic characterization of canine parvovirus strains isolated in Italy." J. Virol. Methods 73:197-200
Saggio et al. (1995) "CNFT Variants with increased biological potency and receptor selectivity define a functional site of receptor interaction." <i>EMBO Journal</i> 14(13):3045-3054
Sakmar and Khorana, "Total synthesis and expression of a gene for the a-subunit of bovine rod outer segment guanine nucleotide-binding protein (transducin), Nucl. Acids Res. 14:6361-6372 (1988)
Sanz et al. (1994) "Genetic heterogeneity of the attachment glycoprotein G among A respiratory syncytial virusus." Virus Res 33:203-217
Saurmann et al. (1990) "Molecular Cloning and Characterization of a German HIV-1 Isolate." AIDS Res. Hum Retroviruses 6:813-823
Sayers et al. "Strand specific cleavage of phosphorothioate-containing DNA by reaction with restriction endonucleases in the presence of ethidium bromide,", Nucl. Acids Res. 16:803-814 (1988)
Sayers et al., "5'-3' Exonucleases in phosphorothioate-based oligonucleotide-directed mutagenesis," Nucl. Acids Res. 16:791-802 (1988)
Schatz, Peter J. et al., "[10] Screening of Peptide Libraries Linked to lac Repressor," Methods Enzymol. 267:171-91 (1996)
Schmaljohn, A.L. et al., "Non-neutralizing monoclonal antibodies can prevent lethal alphavirus encephalitis," Nature 297:70 (1982)
Schwarz et al. (1957) "Modification of Infevtious Bovine Rhinotrachetis (IBR) Virus in Tissue Culture and Development of a Vaccine." Proc Soc Exp. Biol Med. 96:453-458
Schwarz et al. (1958) "Propagation and Modification of Infactious Bovine Rhinotrachetis (BR) Virus in Porcine Kidney Tissue Culture." <i>Proc Soc. Exp. Biol. Med</i> 97:680-683
Scott, Jamie K. and George P. Smith, "Searching for Peptide Ligands with an Epitope Library," Science 249:386-388 (1990)
Seliger et al., "TAP off – tumors on," Immunol. Today 18: 292-299 (1997).

Examiner	Date	
Signature	Considered	

Substitute for form 1449A-B/PTO	C	omplete if Known		
	Application Number	09/247,886		
INFORMATION DISCLOSURE	Filing Date	February 10, 1999		
STATEMENT BY APPLICANT	First Named Inventor	Juha Punnonen		
	Group Art Unit	1633		
Use as many sheets as necessary)	Examiner Name	S. Chen	Page 1	
use as many sheets as necessary)	Attorney Docket Number	02-030210US	•	
AR ARK	Date Submitted	March 25, 2002		

.	\$	
ATENT & TO	353	Sharma and Graham (1982) "Influence of Material Antibody on Efficacy of Embryo Vaccination with Cell-Associated ans Cell-Free Marek's Disease Vaccine." Avian Dis. 26:860-870
	354	Sheu et al. (1995) "Deletion or alteration of hydrophobic amino acids at the third transmembrane domains of Hepatitis B Surface antigen enhances its production in Escherichia coli." 160(2):179-184
	355	Shouval et al. (1994) "Improved immunogenicity in Mice of a mammalian cell-derived recombinant hepatitis B Vaccine containing pre-S1 and pre-S2 antigens as compared with conventional yeast-derived vaccines." Vaccine 12(15):1453-1459
	356	Smith, "In Vitro Mutagenesis," Ann. Rev. Genet. 19:423-462 (1985)
	357	Sokolic et al. (1996) "A Bicistronic Retrovirus Vector Containing a Picornavirus InternationalRibosome Entry Site Allows for Correct of X-Linked CGD Selection for MDR1 Expression." Blood 87:42-50
	358	Soong et al. (1998) "DNA shuffling as a tool to evolve desired retrovial phenotypes." Abstracts of papers presented at the 1998 meeting on Gene Therapy, p. 228 Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, September 23-27, 1998
	359	Soong et al. (1998) "Directed evolution of novel retroviral tropisms by DNA shuffling." Abstract #97, Programs & Abstracts, 1st Annual Meeting of the American Society of Gene Therapy, Seattle, Washington, May 28-31, 1998
	360	Soong et al. (1998) "Directed evolution of novel retroviral tropisms by DNA shuffling." Abstracts of papers presented at the 1998 meeting on Retroviruses, Cold Springs Harbor Laboratory, Cold Spring Harbor, New York, May 26-31, 1998
	361	Sosnovtsev et al. (1998) "Cleavage of the Feline Calicivirus Capsid Precurrsor Is Mediated by a Virus- Encoded Proteinase." <i>J. Virol</i> 72:3051-3059
	362	Srinivasan et al. (1987) "Molecular characterization of human immunodeiciency virus from Zaire." Gene 52:71-82
	363	Stemmer (1991) "A 20-Minute ethidium bromide/high-salt extraction protocol for plasmid DNA." BioTechniques 10(6): 726
	364	Stemmer (1994) Nature 370:389
	365	Stemmer et al. (1991) "Expression of antibody Fv Fragments specific for a heavy metal chelate (indium-EDTA) in E. coli." Journal of Cellular Biotechnology Supplement 0 (15 PART G):217
	366	Stemmer et al. (1992) "Enzymatic inverse PCR: a restriction site independent, single-fragment method for high-efficiency, site-directed mutagenesis." <i>BioTechniques</i> 13(2): 214, 216, 218-220
	367	Stemmer et al. (1993) "Increased antibody expression from Escherichia coli through wobble-base library mutagenesis by enzymatic inverse PCR>" Gene 123(1): 1-7
	368	Stemmer et al. (1993) "Selection of an active single chain Fv antibody from a protein linker library prepared by enzymatic inverse PCR>" Biotechniques 14(2): 256-265
	369	Stern et al., "Purification to homogeneity and partial characterization of cytotoxic lymphocyte maturation factor from human B-lymphoblastoid cells," Proc. Nat'l. Acad. Sci. USA 87:6808 (1990)
	370	Stohwasser et al., "Molecular cloning of the mouse proteasome subunits MC14 and MECL-1: reciprocally regulated tissue expression of interferon -γ-modulated proteasome subunits," Eur. J. Immunol. 27:1182-1187 (1997)
	371	Subbarao et al. (1993) Rescue of an Influenza A Virus Wild-type PB2 Gene and a Mutant Derivative Bearing a Site-Specific Temperature-sensitive and Attenuating Mutation." <i>J. Virol.</i> 67:7223-7228

	ַ	,
Examiner	Date	1
Signature	Considered	

Substitute for form 1449A-B/PTO	C	omplete if Known
	Application Number	09/247,886
INFORMATION DISCLOSURE	Filing Date	February 10, 1999
STATEMENT BY APPLICANT	First Named Inventor	Juha Punnonen
	Group Art Unit	1633
= 40	Examiner Name	S. Chen
obse as many sheets as necessary)	Attorney Docket Number	02-030210US
S THE STREETS AS NECESSARY)	Date Submitted	March 25, 2002

\ * -	- [8]	
`	- 	
	2/2	Sugimoto et al. (1994) "Characteristics of an attenuated vaccinia virus strain, LC16m0 and It's
WATER AND		recombinant virus vaccines." Vaccine 12:675-681
11811	373	Sugimoto et al. (1995) Retroviral Coexpression of a Multidrug Resistance Gene (MDR1) and Human a-
1	3/3	Galactosidase A for Gene Therapy of Febry Disease." Human Gene Ther 6:905-915
—		Tahara et al., "IL-12 Gene Therapy Using Direct Injection of Tumors with Genetically Engineered
	374	Authoracy City Physical 711 was One Thomas City City City City City City City City
	ļ	Autologous Fibroblasts," Human Gene Therapy 6:1607 (1995)
	375	Tan et al., "Characterizationof Recombinant Extracellular Domain of Human Interleukin-10 Receptor," J.
		Biol. Chem. 270:12906 (1995)
١.	376	Tang et al., "Vaccination onto bare skin," Nature 388: 729-730 (1997).
	3/0	1
	377	Tano et al. (1990) Proc. Nat'l Acad Sci USA 87:686-690
	377	<u> </u>
j	378	Tartagila et al. (1992) "NYVAC: A Highly Attenuated Strain of Vaccinia Virus." Virology 188:217-232
	0,0	
	379	Tascon, Richard E. et al., "Vaccination against tuberculosis by DNA injection," Nat. Med. 2:888-92
	0,0	(1996)
	380	Taylor et al., "The rapid generation of oligonucleotide-directed mutations at high frequency using
	300	phosphorothioate-modified DNA," Nucl. Acids Res. 13:8765-8787 (1985)
		Taylor et al., "The use of phosphorothioate-modified DNA in restriction enzyme reactions to prepare
	381	ricked DNA * Nivel Acide Dog 12:0740 9764 (1095)
		nicked DNA," Nucl. Acids Res. 13:8749-8764 (1985)
	382	Thierfelder et al. "Requirement for Stat4 in interleukin-1-2-mediated responses of natural killer and T
		cells", Nature 382:171 (1996)
	383	Todd (1974) *Development of Intranasal Vaccination for the Immunization of Cattle Against infectious
	000	Bovine Rhinotrachetis." Can. Vet J. 15:257-259
	384	Trudel et al., "pGATA: A Positive Selection Vector Based on the Toxicity of the Transcription Factor
	304	GATA-1 to Bacteria," Biotechniques 20:684-693 (1996).
ļ —		Tytgat, G.N.,"Review article: practical management issues for the Helicobacter pylori-infected patient at
	385	
<u> </u>	 	risk of gastric cancer,"Aliment. Pharmacol. Ther. 12(1):123-8 (1998)
	386	Valle amd Falgout (1998) "Mutagenesis of the NS3 Protease of Dengue Virus Type 2." J. Virol 72:624-
		632
	387	van Dinten et al. (1997) "An Infectious arterivirus cDNA clone." Proc. Nat'l Acad. Sci USA94:991-996
<u></u>	 33,	
	388	VanCott et al., "Antibodies with Specificity to Native gp120 and Neutralization Activity against Primary
		Human Immunodeficiency Virus Type 1 Isolates Elicited by Immunization with Oligomeric gp160," J.
		Virol. 71:4319-4330 (1997)
	389	Vassilev et al. (1997) "Authentic and Chimeric Full-length Genomic cDNA Clones of Bovine Viral
	309	Diarrhea Virus That Yeild Infectious Transcrips." J. Virol 71:471-487
		Velzing et al. (1999) "Induction of protective immunity against Dengue virus type 2." Vaccine 17:1312-
	390	
	 	1320
	391	Villinger et al., "Comparative Sequence Analysis of Cytokine Genes from Human and Nonhuman
		Primates," J. Immunol. 155:3946-3954 (1995)
	392	Walther et al. (1996) "Cell type specific and inducible promoters for vectors in gene therapy as an
	552	approach for cell targeting." J. Mol. Med. 74:379-392
		to the second se

	Į	
Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449A-B/PTO	C	omplete if Known	
	Application Number	09/247,886	
INFORMATION DISCLOSURE	Filing Date	February 10, 1999	
STATEMENT BY APPLICANT	First Named Inventor	Juha Punnonen	
vo,	Group Art Unit	1633	
STATEMENT BY APPLICANT Consideration of the second	Examiner Name	S. Chen	
(4) se as many sheets as necessary)	Attorney Docket Number	02-030210US	
<u> </u>	Date Submitted	March 25, 2002	

ا،	¥		Date Submitted	March 25	, 2002
	Z.				
MERRI	393	Walunas et al., "CTLA-4 Can Func (1994)	-	•	
	394	Wells et al., "Cassette mutagenesis sites," Gene 34:315-323 (1985)	s: an efficient method	for generation of m	ultiple mutations at defined
	395	Wells et al., "Importance of hydroge Trans. R. Soc. Lond. A317:415-423	Wells et al., "Importance of hydrogen-bond formation in stabilizing the transition state of subtilisin," Phils Trans. R. Soc. Lond. A317:415-423 (1986)		
	396	Wermeille, Joel et al., "The eradica" (1998)	ation treatments of He	• • •	İ
	397	Whelan et al. (1995) "Efficient recordines." Proc. Nat'l. Acad. Sci. USA	very of infectious vesi 92:8388-8392	icular stomatitis virus	entirely from cDNA
	398	Whitacre et al.,"Treatment of Autoin Immunopathol. 80: S31-9 (1996).	nmune Disease by O	ral Tolerance to Aut	pantigens," Clin. Immunol.
	399	Wiertz et al., "SEC61-mediated tran proteasome for destruction," Nature	nsfer of a membrane 384: 432 (1996).	protein from the end	oplasmic reticulum to the
	400	Wiertz et al., "The Human Cytomeg from the Endoplasmic Reticulum to	alovirus US11 Gene the Cytosol." Cell 84:	769-779 (1996).	MHC Class 1 Heavy Chains
	401	Winther et al. (1998) "Viral-Induced	Rhinitis." Am J. Rhin	nol 12:17-20	
	402	Wisniak et al. (1974) "Hydrogen So			
	403	Wloch et al., "The Influence of DNA Sequence on the Immunostimulatory Properties of Plasmid DNA Vectors," Hum. Gene Ther. 9:1439-1447 (1998)			perties of Plasmid DNA
	404		Woody, Mary Alice et al., "Staphylococcal enterotoxin B mutants (N23K and F44S): biological effects and vaccine potential in a mouse model," Vaccine 15(2):133-139 (1997)		
	405	Wright et al. (1998) "Humane endpo encephalomyelitis virus infection of r	Wright et al. (1998) "Humane endpoints are an objective measure of morbidity in Venezelan encephalomyelitis virus infection of mice," <i>Arch Virol</i> 143:1155-1162		
	406	Xiang, Z. et al., "Manipulation of the Coinoculation with Plasmids Express	Immune Response t	o a Plasmid-Encode	d Viral Antigen by
	407	Yanagi et al. (1997) "Transcripts from a single full-length cDNA clone of hepatitis C virus are infectious when directly transfected into the liver of a chimpanzee." <i>Proc Nat'l Acad. Sci. USA</i> 94:8738-8743			
	408	Yanagi et al. (1999) "In vivo analysis mutagenesis of an infectious cDNA	s of the 3' untranslate	d region of the hepa	titis C virus after in vitro
	409	Yao et al. (1998) "Generation of Mul Leaions." <i>J. Virol.</i> 72:2647-2654	tant Infectious Bursal	Disease Virus That	Does Not Cause Bursal
	410	Yu et al. (1995) "Functional cDNA C 69:2412-2419			
	420	Zamvil, Scott S. and Lawrence Ste Encephalomyelitis," Ann. Rev. Immu	inman, "The T Lymp nol. 8:579-621 (1990	hocyte in Experimer	ital Allergic
	421	Zhong et al. (1998) "Idenification an within the Nonstructural Protein 5B F	d Characterization of Region of Bovine Vira	an RNA-Dependen I Diarrhea Virus," <i>J.</i>	Virol. 72:9365-9369
	422	Zhong, Weimin et al., "Therapeutic Nat'l. Acad. Sci. USA 94:12533-1253	passive vaccination a	against chronic Lyme	e disease in mice," Proc.
	423	Zoller and Smith, "Oligonucleotide-	directed mutagenesis	using M13-derived	vectors: an efficient and
Exan	niner			Date	
Signa	ature	·	*	Considered	•

Substitute for form 1449A-B/PTO	Complete if Known		
	Application Number	09/247,886	
INFORMATION DISCLOSURE	Filing Date	February 10, 1999	
STATEMENT BY APPLICANT	First Named Inventor	Juha Punnonen	
C ₁	Group Art Unit	1633	
Luse as many sheets as necessary)	Examiner Name	S. Chen	
01	Attorney Docket Number	02-030210US	
	Date Submitted	March 25, 2002	

»		
TEN	18 THINE	general procedure for the production of point mutations in any fragment of DNA," Nucl. Acids res. 10:6487-6500 (1982)
		Zoller and Smith, "Oligonucleotide-Directed Mutagenesis: A Simple Method using Two Oligonucleotide Primers and a Single-Stranded DNA Template," Methods in Enzymol. 154:329-350 (1987)
	42	Methods in Enzymol. 100:468-500 (1983)
	42	270(11):5864-5871
	42	Zuschek et al. (1961) "Immunogenicity of 2 Infectious Bovine Rhinotracheitis Vaccines." J. Am. Vet. Med. Assoc. 139"236-237
	42	Zygraich et al. (1974) "In Vivo and In Vitro Properties of a Temperature Sensitive Mutant of Infectious Bovine Rhinotracheitis Virus." Res. Vet. Sci. 16:328-335

	· · · · · · · · · · · · · · · · · · ·		
Examiner		Date	
Signature		Considered	